

Building a skilled workforce: Public discourses on vocational education in Thailand

Chalapati, Nakarin; Chalapati, Supaporn

Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Chalapati, N., & Chalapati, S. (2020). Building a skilled workforce: Public discourses on vocational education in Thailand. *International journal for research in vocational education and training*, 7(1), 67-90. <https://doi.org/10.13152/10.13152/IJRVET.7.1.4>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY-NC Lizenz (Namensnennung-Nicht-kommerziell) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier: <https://creativecommons.org/licenses/by-nc/4.0/deed.de>

Terms of use:

This document is made available under a CC BY-NC Licence (Attribution-NonCommercial). For more information see: <https://creativecommons.org/licenses/by-nc/4.0>

Building a skilled workforce: Public discourses on vocational education in Thailand

Nakarin Chalapati¹ and Supaporn Chalapati^{*2}

¹*Box Hill Institute, Faculty of Creative Industry and ICT, Melbourne, Australia*

²*Box Hill Institute Transnational Education, International Division, Melbourne, Australia*

Received 22.01.2019, Accepted 30.10.2019, Published: 29.04.2020

Abstract

Context: Thailand is facing skilled labour shortages, which has prevented the country from achieving significant economic progress. This paper examines Thailand's vocational education policy discourses from 1992 to 2014 and how successful such policies were in building the country's skilled labour force.

Approach: This study utilised a qualitative approach, using documentation analysis as a key research method. We also used data triangulation and thematic analysis to categorise the public discourses. In order to examine the vocational education policy discourses in Thailand, secondary data such as the five National Economic and Social Development (NESD) Plans (7th, 8th, 9th, 10th, and 11th) and other government policy statements were investigated and triangulated, along with data from newspaper articles, other public documents, reports from international organisations, and academic journal articles.

Findings: Based on the findings of the study, we identified three key policy discourses regarding vocational education in Thailand during the period 1992 to 2014: (1) increasing the vocationally skilled workforce, (2) the role of private vocational providers, and (3) collaboration between vocational providers and industry.

Conclusion: We argue that there are five key policy themes in building a vocationally skilled workforce: (1) dedication of government in increasing the vocationally skilled workforce, (2) encouraging collaboration between vocational colleges and industries, (3) fostering a

*Corresponding author: s.chalapati@boxhill.edu.au



greater role for private vocational providers, (4) promoting a positive image for vocational education, and (5) maintaining the continuity of policy implementation.

Keywords: Vocational education and training, Thailand, skilled workforce, skilled labour shortages, public policy, VET

1 Introduction

Cheap labour costs used to be a competitive advantage for Thailand; however, the country has lost this edge to other countries such as China, India, Vietnam and Indonesia. The ideal solution is to move up the economic-value chain from labour-intensive to technology-intensive industries in which a skilled workforce plays a significant part. However, Thailand is currently facing skilled labour shortages, which is preventing the country from achieving significant economic progress (International Labour Organization, 2013; Jitsuchon, 2012). Thailand is in desperate need of a skilled workforce, especially vocationally skilled workers. This phenomenon has led to the research question: in order to achieve economic progression, can the Thai government and society respond to the skilled labour shortages by using vocational education as a means to train students with skills that industry need? Therefore, this paper explores the public discourses on vocational education in Thailand by examining how thoroughly the Thai government and society have debated vocational education policy in responding to the country's skilled labour shortages.

The timeline of this study is the period from 1992 to 2014. This timeframe was chosen due to the significant changes in Thailand's economic and political landscape during this period. The term 'skilled labour shortages' was first recognised by policymakers in the early 1990s when it was mentioned in the National Economic and Social Development (NESD) Plan 7 (1992-1996) and Prime Minister Anand Panyarachun's Policy Statement (1991). Between September 1992 and May 2014, Thailand was governed by a number of elected governments, marking a long period of democratic rule¹, where the policymaking process was implemented democratically through debates and discussions in the Cabinet, parliament and public arena. There were various discussions and debates in Thai society about how to utilise vocational education to build a skilled workforce. The period of this study ends in May 2014 when the government of Yingluck Shinawatra was overthrown in a military coup. At present, Thailand continues to remain under the control of the military junta and, as a result, the policymaking process is characterised by a lack of public debate and discussion. The importance of a skilled workforce is emphasised by the Human Capital Report (2015, p.3), which states that, 'a nation's human capital endowment—the skills and capacities that reside in people and

¹ Democratic rule was interrupted for a short time by a military coup in September 2006. Since that time, an interim military-backed government governed Thailand until a general election was held in December 2007.

that are put to productive use—can be a more important determinant of its long term economic success than virtually any other resource.’ This is further reinforced by the World Bank (2012), which suggests that a skilled workforce is an important factor driving both the creation and application of knowledge that underpins economic development. The Organisation for Economic Co-operation and Development (OECD) (2013) also adds that a skilled workforce is a critical factor in structural economic change, especially when a country is moving from labour-intensive industries to technology-intensive industries. Bennell and Segerstrom (1998) point out that in the early stage of industrialisation, a country does not need a highly skilled workforce. A labour workforce with satisfactory basic education and some on-the-job training would be sufficient for industrial development. However, when a country moves to higher skilled industry, appropriate vocational education is needed.

2 Skilled labour shortages in Thailand

From the 1970s, Thailand started to develop its economy through labour-intensive industries, with cheap labour costs being the country’s main competitive advantage. Since the 1997 Asian financial crisis, however, Thailand’s competitive advantage of cheap labour has been directly challenged by other countries in the region (World Bank, 2012). This is due to the increase in labour costs in Thailand causing labour-intensive industries to relocate their production lines from Thailand to other countries in the region. Accordingly, in order to remain competitive, Thailand needs to transition away from its reliance on labour-intensive industries and do more to promote skilled-intensive industries in areas such as computing, telecommunications, and electronics (Szirmai, 2012).

However, Thailand does not have enough vocationally skilled workers to offer to the labour market. In 2012, the Federation of Thai Industries (FTI) predicted that many businesses such as the automotive, electronic, and construction industries would need a significant amount of skilled labour; however, educational institutions would not be able to provide enough skilled labour as required (‘The need of skilled labour’, 2012; ‘Auto industry needs skilled labour’, 2012). From the perspective of foreign investors, a survey was conducted by the Japan External Trade Organization (JETRO) (2006), which stated that the demand by Japanese firms in Thailand for engineers has increased, especially in the automotive industry. However, most Japanese businesses have not been satisfied with the quality of the labour supply. For example, many Thais in the labour force do not have proficiency in foreign languages, which is required by Japanese firms.

These examples indicate a mismatch between education policy and the skills requirements of the business sector, which represents a key obstacle contributing to Thailand’s skilled labour shortages (Egawa, 2013; Phongpaichit & Benyaapikul, 2013). The shortage of engineers and technicians is not a recent phenomenon—these shortages have been occurring

for an extended period of time. Paron Issarasena, the former President of FTI, stated in 1989 that Thailand did not have a sufficient number of engineers and technicians to meet industry demand ('Shortage of engineers', 1989). He contended that this problem could affect the country's industrial growth. This observation from over 20 years ago raises questions about how the Thai government has dealt with the problem so far, and why the problem of skilled labour shortages continues to remain an issue.

3 Role of vocational education in building a skilled workforce

Education has played a crucial role in improving the quality of the labour workforce. After basic education, higher advanced skills are learnt at the vocational level—skills that are necessary for a country's development (Kim, 2012; Montague, 2013). More advanced and appropriate skills are provided through vocational education to suit specific industrial needs (Chong, 2014). In particular, countries in the industrialisation stage of economic development, with a middle-income status, should prioritise educational development in both vocational and technical areas (International Labour Organization, 2008). The importance of vocational education has been recognised in the extant literature as an effective tool for reducing youth unemployment (Baldi et al., 2014; Cabus, 2015; Eichhorst, Rodriguez-Planas, Schmidl, & Zimmermann, 2015), increasing the productivity of firms (Agrawal, 2013), and providing goods and services for society (Billett, 2014). Vocational education teaches specific trades and practical skills that students can apply in their future careers (Agrawal, 2013). There are three types of vocational education (see figure 1): vocational and technical schools, formal apprenticeships, and dual apprenticeships that combine school training and formal work experience (Eichhorst et al., 2015).

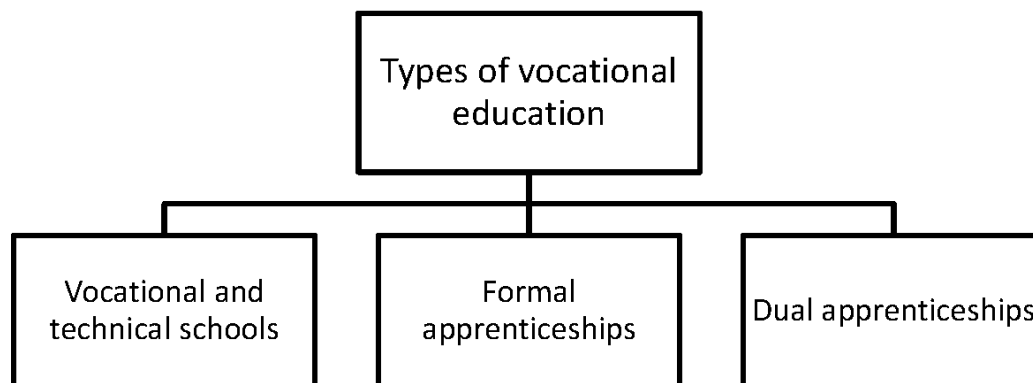


Figure 1: Types of vocational education

Firstly, the vocational and technical school model is based on a combination of general and vocational education as part of an upper secondary education (Eichhorst et al., 2015). Students are provided with academic knowledge as well as practical skills. Secondly, the concept of a formal apprenticeship is based on learning through workplace training with minimal formal education (Eichhorst et al., 2015). Countries that follow this model include the US, the UK, and Australia. Each of these countries has its own conditions for participating in apprenticeship programs. Thirdly, the dual apprenticeship model is based on the notion of combining formal education and workplace training (Eichhorst et al., 2015). Countries in northern Europe such as Germany, Switzerland, Denmark, and Austria follow this system. The training must be based on centrally accredited occupational qualifications in order to meet marketplace requirements (Eichhorst et al., 2015). The formal apprenticeship and dual apprenticeship models have provided students with opportunities to learn practical skills bolstered by experience from workplace training.

4 Vocational education system in Thailand

Vocational education was first recognised in Thailand in 1898 for the practice of trade and agricultural skills. In 1910, the first vocational college was established. Currently, there are 428 public vocational colleges and 486 private vocational colleges in the country. The Office of the Vocational Education Commission, attached to the Ministry of Education, is responsible for vocational education in Thailand. In addition, vocational education is also offered by the Office of Non-Formal and Informal Education for students outside the formal school system such as the unemployed and adult learners (Changdacha & Larpkesorn, 2017). There are three levels of vocational education in Thailand: a Certificate (Por Wor Chor); Diploma or Associate Degree (Por Wor Sor); and Degree (Parinya-Tree).

Currently, the Thai education system falls under the mandate of the National Education Act (B.E.2542; 1999), which covers nine years of compulsory basic education. In addition, 12 years of free basic education is offered to all children in Thailand regardless of their ethnic background. This free basic education starts from pre-primary education for children aged three to five, then from Grade 1 to 6 in the primary level, and Grade 7 to 9 in the lower secondary level (Changdacha & Larpkesorn, 2017). From Grade 9, students have two pathways from which to choose: upper secondary level (Grade 10 to 12) or vocational education (Bureau of International Cooperation, 2008). Since the beginning, the Thai vocational system has been following the vocational and technical school approach, providing students with academic knowledge as well as practical skills. This approach clearly indicates the vital role of the teacher in the Thai vocational education system.

5 Global vocational education policies

According to the extant literature, there are two key aspects to improving vocational education: (1) the dedication of the government and, (2) industrial requirements. Figure 2 displays the conceptual framework for improving vocational education.

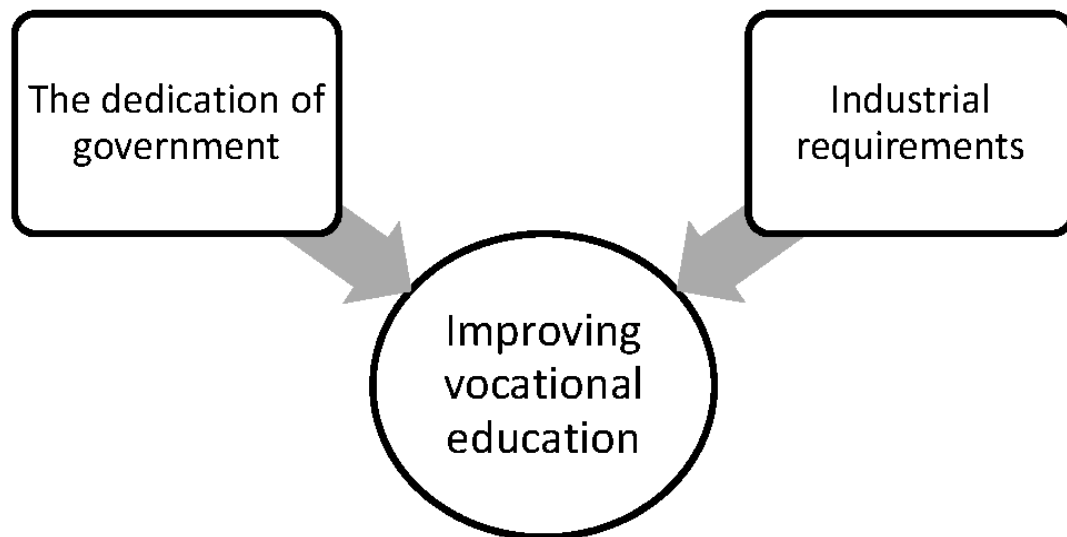


Figure 2: The conceptual framework for improving vocational education

On the one hand, the government's dedication to improving vocational education involves formulating policies aimed at affecting the quality and quantity of institutions, teachers, and the broader curriculum (Allais, 2012; Chong, 2014; Kim, 2012). During the 1960s and 1970s, the Park Chung Hi government in South Korea made a strong determination to achieve the nation's development goals through vocational education (Kim, 2012). A significant number of vocational schools and skills-based training centres were established during this era. This was also evidenced in the rapid growth and development in Singapore during its industrialisation phase. From the mid-1960s through to the 1990s, the Singaporean government focused on developing its manufacturing industry while, correspondingly, working to develop the country's vocational education system as a whole. Teachers were sent to industrialised countries such as Germany, Japan, Australia, and the UK for vocational training (Chong, 2014). Vocational education was expanded to the secondary school curriculum, with vocational schools established with the intent of providing necessary skills for this sector. Consequently, the number of vocational students increased from 12,000 in 1971 to 18,000 by the end of 1970s (Ho & Ge, 2011). In addition, in order to improve both the quality and quantity of vocational education in the long run, one particular policy response had emerged, which

was aimed at addressing negative societal attitudes towards vocational education (Billett, 2014; Ling, 2015). This was a major obstacle during the early period of national development in Singapore. Parents preferred their children to go to universities rather than vocational schools due to the prestige attached to a university education (Chong, 2014). The Singaporean government applied programs and incentives such as the 'Use your hands' program—launched in 1976—to encourage students and their families to have a more positive attitude towards manual work. Another example was the 'Top of the Trade' TV competition. It was a challenge in woodwork, automotive trades, electronics, mechanics, and construction, all of which aimed to enhance the image of vocational skills. On the other hand, because industrial needs must be the focus, policymaking should involve all stakeholders (Lashley, 2009; Montague, 2013; Stone, Kaminski, & Gloeckner, 2009). Abelman, et al., (2001) argue that policies relating to vocational education should be market-driven. It should be a coordinated effort between vocational colleges and industry which, accordingly, would help to produce a skilled workforce that supports both economic policy and the actual needs of employers.

Each government should collaborate with its business and education sectors to ascertain the types of skills needed and to instigate an appropriate human development plan (Hawley & Paek, 2005). In particular, countries that are at the industrialisation stage of economic development need to establish strong vocational education systems (ILO, 2008). In Europe, the approach to skills development involves stakeholders such as trainees and their families, trade unions, employers, and educational institutions (Lashley, 2009). Cameron and O'Hanlon-Rose (2011) point out that in Australia the main reason for shortages in tradespersons (skilled labour) is the under-investment in apprenticeships, which reflects the lack of focus on addressing industrial needs.

6 Research methods

The research is based on a qualitative approach, which provides an in-depth understanding of social problems (Robson, 2011). The key research method is documentation analysis. This involves a process of studying a particular phenomenon by examining, analysing, and interpreting various documents (Marshall & Rossman, 1999; Schwandt, 2007). The data sources are secondary data, which include both raw and published materials such as reports, government documents, academic articles, newspaper articles, journal articles, letters, diaries, minutes of meetings, and memoirs (Saunders et al., 2007).

We adopted a triangulation and a thematic analysis to identify and analyse themes from the data collected. Triangulation is a research technique using data from different sources in a study in order to strengthen the validity of research findings to help promote a more in-depth understanding of a study (Robson, 2011). Thematic analysis is an analytical method that reflects and discloses the reality of the study, and a theme represents an important concept in

the data, related to the research questions (Braun & Clarke, 2006). Thus, in order to answer the research question, documentation analysis, triangulation, thematic analysis and narrative inquiry formed the basis of the investigative techniques adopted to examine the role of vocational education in Thailand. To examine the vocational education policy discourses in Thailand, the five NESD Plans (7th, 8th, 9th, 10th, and 11th) and other government policy statements were investigated and triangulated, along with data from newspaper articles, other public documents, reports from international organisations, and academic journal articles.

7 Findings—policy discourses on vocational education in Thailand 1992-2014

The findings were derived from the five NESD Plans (7th, 8th, 9th, 10th, and 11th), prime ministers' policy statements, and other government documents. These documents were investigated and triangulated, along with data from English newspaper articles on vocational education such as news, public debates, disputes, and recommendations. Also, other public documents, international organisation reports, and academic journal articles were discussed, analysed and triangulated as well. Three key policy discourses on vocational education in Thailand during the period 1992 to 2014 were identified: (1) increasing the vocationally skilled workforce, (2) the role of private vocational providers, and (3) collaboration between vocational providers and industry.

7.1 Policy discourse 1: Increasing the vocationally skilled workforce

It was noted in the NESD Plan 7 (1992-1996) that the expanding role of the industrial and service sectors had revealed a shortage of skilled manpower such as technicians and professionals, especially in the areas of science and technology. Thailand needed to improve the skills of its labour workforce beyond the basic education level. Even though an awareness of skilled manpower shortages was disclosed in the NESD Plan 7, neglect by the Thai government in improving vocational education was evident. There was no reference to the term 'vocational education' in the Plan; instead, the Plan focused more on basic and higher education. This indicates a high level of apathy by the Thai government towards vocational education. Interestingly, the lack of public debate on vocational education was also evident at the time. For instance, during the period of the NESD Plan 7, there was a complete lack of news coverage about vocational education in the English newspapers throughout Thailand.

Neglecting vocational education is also evidenced in other public documents. In his policy statement, Prime Minister Anand Panyarachun mentioned the problem of skilled labour shortages; however, he did not mention the term 'vocational education'. His successor, Prime Minister Suchinda Kraprayoon (1992) mentioned the importance of encouraging a greater

role for the private sector in vocational education. However, both Anand and Suchinda were in power for a short period due to political conflict at the time. The short duration of these two prime ministers highlights the phenomenon of policy interruption and discontinuity in Thai politics. Following on, Prime Minister Chuan Leekpai also did not refer to vocational education in his policy statement. Prime Minister Bunharn Silpa-archa was the only prime minister during this time who made serious statements about addressing the issue of vocational education. In his policy statement (1995), Bunharn recommended the enhancement of vocational institutes such as increasing teacher numbers, developing curriculums and encouraging cooperation with foreign institutes to improve the nation's competitiveness. Between 1992 and 1996, even though vocational education was neglected by successive governments, the number of vocational students increased from about 600,000 in 1992 to around 970,000 in 1996, and continued to rise to more than one million by 1997. This might have been due to Thailand's steady economic growth during this period. The GDP growth rates of the country were very high in the early 1990s—from 1991 to 1995 the GDP was 8.6%, 8.1%, 8.3%, 9.0%, and 9.2% respectively. This economic growth no doubt created a demand for a vocationally skilled workforce in Thailand's labour market.

In contrast to the NESD Plan 7, the role of vocational education was formally recognised in the NESD Plan 8 (1997-2001). The objective of Plan 8 was to develop the vocational skills of the workforce, especially with an eye to expanding the number of technicians, as well as a middle-level skilled workforce, to enable the country to adapt to the changing social and economic environment. The aim to develop a vocationally skilled workforce was evidenced when the government approved the cancellation of gender quotas in the vocational education entrance exam (Cabinet Resolution 26 November, 1996). This decision led to an increase in the number of female vocational students; it also showed the attempt to provide equal opportunity for women in the workforce. However, obstacles emerged for the vocational education sector due to inconsistencies in the policymaking process. Prime Minister Chuan Leekpai, who returned to office for a second time, again made no mention of vocational education in his policy statement. In addition, the National Education Act of B.A. 2542 (1999), which covered all areas of the education system, also made little mention of vocational education. The Act only specified that vocational education would be provided for by state-owned institutes, private institutes and other enterprises (Abelman et al., 2001).

During the period of the NESD Plan 8, there was a report from the World Bank suggesting several issues for vocational education improvement (Abelman et al., 2001). The report recommended that the Thai government should set clear standards for vocational graduates and establish an assessment system for students, teachers and schools. The report also suggested that Thailand implement content standards to be used as guidelines on what and how subjects should be taught in each year level; that is, a framework serving as a guide for the nation's curriculum. It was deemed important to ensure that the curricula across all of

Thailand's vocational colleges comply with the same education standards—students would then better understand what they could achieve from a course. In 2004, the Cabinet took further steps to improve the quality of vocational education, including the establishment of the Professional Qualification Institute to better coordinate the tasks of government agencies from different ministries on the national strategy for skilled labour policy (Cabinet Resolution 26 October, 2004b), and the implementation of the National Education Standard (Cabinet Resolution 26 October, 2004a).

In the NESD Plan 9 (2002-2006), increasing the quantity of vocationally skilled workers was the key focus. In line with this focus, Prime Minister Thaksin Shinawatra established the Income Contingency Loan (ICL) program, aiming to provide funding to both higher education students and vocational students for study purposes ('Thai government provides', 2005). In this program, students could start to pay the loan back when they were employed. Even though this ICL program was an attractive concept, it was reported that within a year of its implementation, the number of students enrolled in vocational education had dropped by almost 30% ('Vocational school enrolment', 2006). This drop may have been due to the perceived financial limitations of this program for vocational students. That is, based on the regulations of the loan program, vocational students could not borrow the same amount of money as university students. For example, vocational students could only borrow 25,000-30,000 baht a year compared with 60,000 baht for social science and 70,000 baht for science and engineering university students. Hence, many students applied to universities rather than vocational colleges for their continued education.

In the next NESD Plan 10 (2007-2011), it was stated that Thailand's labour workforce, as a product of the country's vocational education system, was deficient in both quantity and quality. The Plan superficially mentioned that it was very important to produce a workforce with vocational skills to feed the market's needs in order to increase the country's competitiveness. However, based on various public documents and newspaper articles, there were obstacles in improving vocational education such as: unclear frameworks and policy; budget constraints; a shortage in both the quality and quantity of teachers; a lack of cooperation between education institutes, communities, and the requirements of the labour market; the decreasing birth rate; students' lack of knowledge in foreign languages; and the bad reputation of vocational students ('Better graduates needed', 2007; Na Mahachai, 2007; Office of the Education Council, 2011; Sornnil, Boonyasopon, Utakris, & Chokepipat, 2005; Vocational Education Commission, 2012).

Due to the high degree of negative public sentiment towards vocational education, the most widely discussed obstacle was the image of vocational education as being a second-rate choice (Ekachai, 2011; 'Thailand must', 2011; 'Wage moves', 2011). Both students and parents showed a preference for a university rather than vocational education. Often upon graduating, most vocational students, rather than enter the workforce, continued to study at

the higher education level, even in fields unrelated to what they had studied as part of their vocational education. It was recommended that the government concentrate on changing society's attitude towards vocational education, such as by providing clearer guidelines on career paths for vocational education graduates ('Educators comment', 2011). The negative reputation of vocational education within Thai society may also explain the lack of success experienced by the ICL program in its efforts to promote Thailand's vocational education sector.

In the NESD Plan 11 (2012-2016), the goal of increasing the number of vocational students aimed to adjust the ratio of vocational and secondary students to 60:40. However, the government did not succeed in these vocational education policies as expected. Figure 3 shows the percentage of graduates in secondary education (Year 12) and vocational education (Vocational Certificate or Por Wor Chor) between 1992 and 2013. The figure clearly indicates the increasing gap between these two types of graduates, in which the number of secondary education graduates is higher than vocational education graduates.

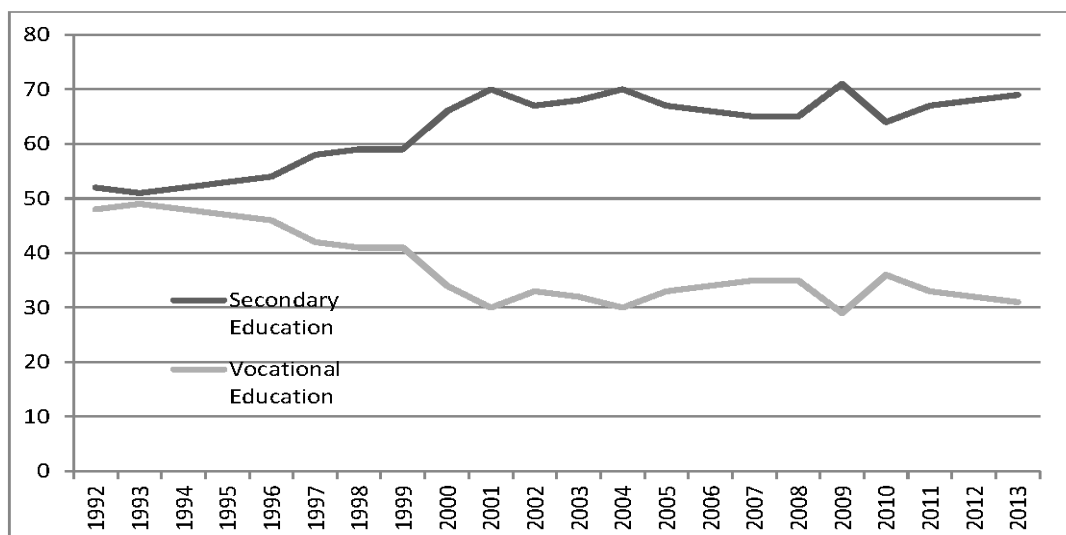


Figure 3: Percentage of graduates in secondary education (Year 12) and vocational education (Vocational Certificate or Por Wor Chor) between 1992 and 2013

Source: The National Economic and Social Development Board; http://social.nesdb.go.th/SocialStat/StatReport_Final.aspx?reportid=43&template=1R2C&yeartype=M&subcatid=23

In addition, figure 4 shows the numbers of vocational education students and higher education students (including postgraduates) between 1992 and 2008. The graph illustrates the significant gap between these two sectors of education. It indicates that the Thai government has focused more on higher education at the expense of vocational education.

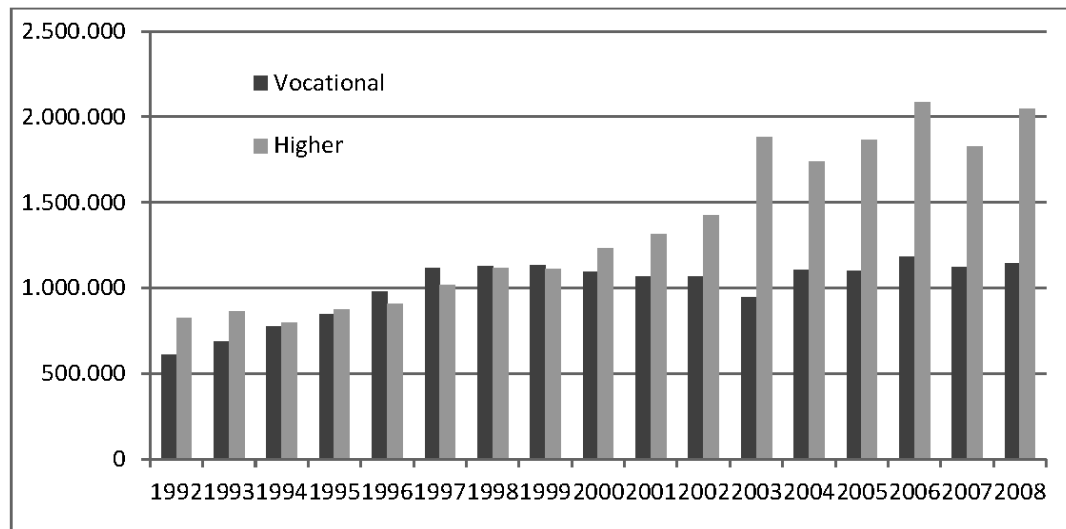


Figure 4: The number of vocational education students and higher education students (including postgraduates)

Source: Ministry of Education, http://www.moe.go.th/data_stat/

A senior government officer argued that the aim of increasing the proportion of vocational students would not be successful due to the negative attitude of Thai society towards vocational education (Wongsamuth, 2012). However, a newspaper article suggested that Singapore could serve as an example of changing societal attitudes (Khaopa, 2012). The country used to be in a similar position to Thailand, with a negative attitude towards vocational education; but since the Singapore government enhanced the image of vocational education via improved student quality, industrial involvement had increased. The key factor was 'learning by doing', with teaching staff updating and improving their skills based on feedback from industry-experienced workers, and acquiring specific employment knowledge and skills that could be passed onto the students. Accordingly, Singapore's vocational students gained skills that accurately matched the needs of the labour market. This had a positive influence on the country's economic growth, thereby shining a more positive light on the country's vocational education system.

7.2 Policy discourse 2: The role of private vocational providers

The importance of encouraging private vocational providers to take a greater role in skilled workforce development was highlighted in the NESD Plan 8 (1997-2001). However, the key obstacle discouraging an increased role by private vocational providers was the negative attitude of Thai society towards these private institutions. In Thailand, private vocational providers are often seen as a second-rate choice with students preferring to apply for public vocational colleges. Due to limited places in public vocational institutes, admissions were processed via an entrance examination, where those students who did not pass then had the option to enrol in a private vocational school (Johanson & Wanasiri, 2001). This entrance exam generally meant that the educational performance of private vocational students was often not as high-quality as public vocational students. In addition, some students in private vocational schools were of lower socioeconomic status than those in public vocational schools (Abelman et al., 2001; Johanson & Wanasiri, 2001). In these cases, families had to pay off their children's school fees via instalments ('Thailand's private schools', 1997). In 1997, during the Asian Financial Crisis, the household financial situation became even more severe; some parents had to ask their children to drop out of school. At this time, many private vocational schools were forced to ask the government for financial assistance to help their students stay in school. The Thai Cabinet approved a loan fund from the Asian Development Bank to financially assist private vocational students in need of support (Cabinet Resolution 28 March, 2000).

Moreover, it was argued that the government did not support private vocational providers to the same degree as it did with public vocational providers. For example, private vocational institutions did not receive subsidies from the government as was the case with public vocational institutions. As a result, the costs for education at a private vocational institute were much higher than at public vocational institutes. For example, in 1997 the cost of tuition at a private vocational education provider was about 13,320 baht compared with 3,033 baht for a public institution (Johanson & Wanasiri, 2001). There was also a complaint from private vocational schools that enrolment numbers were decreasing due to the government offering greater support for public vocational colleges (Private colleges, 2002). This was confirmed by the Deputy Education Minister that the Ministry did not have a policy to limit enrolment numbers in the public vocational sector. Figure 5 shows the ratio of the number of vocational students in public and private vocational colleges.

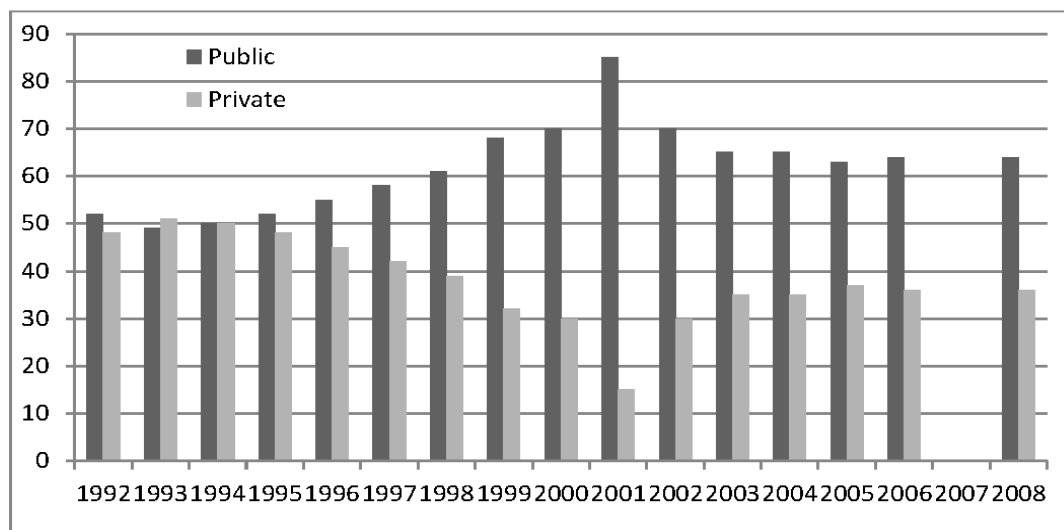


Figure 5: The ratio of vocational students in public and private vocational colleges between the period of 1992-2008

Source: Ministry of Education: http://www.moe.go.th/data_stat/

7.3 Policy discourse 3: Collaboration between vocational providers and industry

During the period of the NESD Plan 8 (1997-2001), Prime Minister Chavalit Yongchaiyudh declared in his policy statement that he would reform vocational education by encouraging cooperation between educational institutions and the major industries to meet the requirements of the labour market. The role of industry involvement in improving vocational education was also discussed in newspaper articles at the time. For example, the President of the Confederation of Thai Employers (CTE) urged the government to review the vocational education syllabuses in order to develop a labour workforce that matched the requirements of industry through collaboration between educational providers and industries (Pongvutitham, 1998).

In 1999, CP All, which operates 7-Eleven throughout Thailand, and the Informal Education Department joined a program to provide training to students who were particularly interested in the services sector (Pongvutitham, 1999). This program was later expanded with CP All establishing its own vocational college to produce students with the specific skills it required (Amornvivat, 2012; Saengpassa, 2012). In 2001, ASEAN's first automotive training college was opened in Thailand (Wiriyapong, 2001), which was a cooperative project

between the Ministry of Education's Department of Vocational Education and the Honda Group.

During the NESD Plan 10 (2007-2011), the need for a skilled workforce at the vocational level was a major concern for the industrial sector in Thailand (Marukatat, 2008), especially in the automotive industry (Ongdee, 2007). This tremendous demand led to the collaboration between different industries and vocational education providers. It was reported that major car manufacturers General Motors and Chevrolet Sales had jointly established an Automotive Service Educational Programme (ASEP) that was focused on producing highly skilled technicians in the automotive industry (Scheme adds, 2008). Under the ASEP program, students from 11 vocational colleges across Thailand were trained for six days a week for three months to develop the necessary skills for the automotive industry.

Another example of collaboration was in Phuket, a popular tourist destination. A local vocational college and the Phuket Spa Association jointly established a spa training course for vocational students due to the growth of the spa industry (Nottingham, 2008). Another example involved the Siam Cement Group (SCG), one of the leading conglomerates in Thailand, which signed an agreement with the Office of the Vocational Education Commission (OVEC) to provide on-the-job training to about 200 vocational students ('Siam Cement Group', 2009).

Based on this education agreement, students from Rayong Technical College who are trained in SCG's petrochemical plants are generally hired by SCG when they graduate (Prachyakorn, 2009). The Vocational Education Commission also later signed an agreement with TOA Paint (Thailand) to train vocational students in painting and spray-coating skills as there was a shortage of workers in that industry (Ongphet, 2011).

Accordingly, the collaboration between the Thai government and industry led to the introduction of new skills and technologies to Thailand. The OVEC was responsible for keeping up-to-date on the requirements of the labour market by maintaining ongoing cooperation with industries. The importance of collaboration between vocational providers and industry was also affirmed by Yingluck Shinawatra's government; in her policy statement, Yingluck stated that aligning vocational education with the requirements of the labour market, and supporting the ICL program, were the two key cornerstones of the government's vocational education policy. These collaborations between the Ministry of Education and industries were also reported in various newspaper articles (Chalamwong, & Suebnusorn, 2012; Education reform, 2013).

8 Discussion

The findings have shown that there were three key policy discourses in Thai society regarding vocational education during the period 1992 to 2014: increasing the vocationally skilled workforce; the role of private vocational providers; and collaboration between vocational providers and industry. Based on the data analysis of these three policy discourses, we argue that there are five key policy themes in building a vocationally skilled workforce: (1) dedication of government in increasing the vocationally skilled workforce, (2) encouraging collaboration between vocational colleges and industries, (3) fostering a greater role for private vocational providers, (4) promoting a positive reputation for vocational education, and (5) maintaining the continuity of policy implementation (see figure 6).

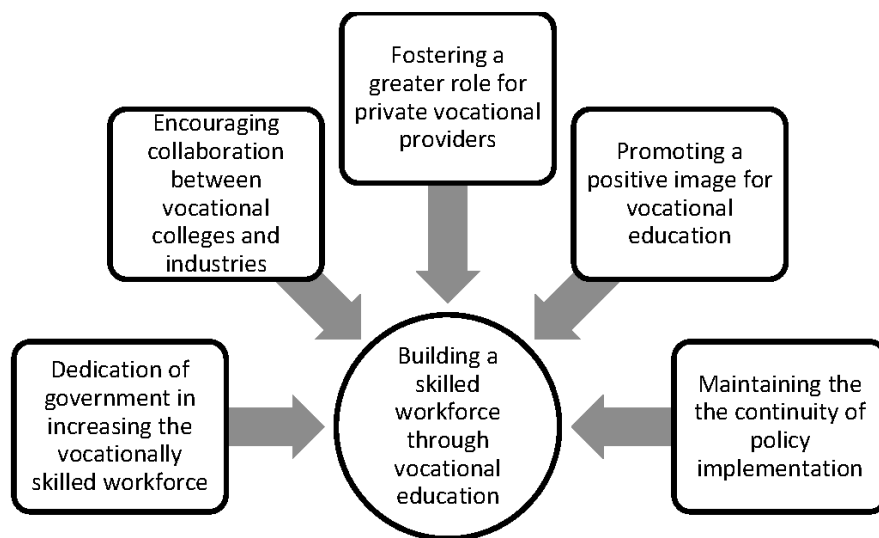


Figure 6: Vocational policy themes supporting the building of a skilled workforce

9 Policy theme 1: Dedication of government in increasing the vocationally skilled workforce

This study's data analysis indicates that Thailand's production of a vocationally skilled workforce has not been highly successful. The key factors that prevented an increase in the number of vocational students included the lack of dedication on the part of the Thai government in promoting vocational education; the mismatch between education policy and industrial policy; the poor reputation of vocational students; the attitude of society towards vocational training; and the unclear standards of vocational education. Lack of government dedication

towards vocational education is the most influential factor as figures 3 and 4 indicate. These two sets of figures clearly indicate that the Thai government has mostly focused on basic and higher education rather than vocational, even though many of Thailand's industries require vocationally skilled workforces. Hence, moving forward, the Thai government needs to be more dedicated to implementing a policy aimed at increasing the country's vocational workforce to meet its economic development goals as required by Thailand's labour market. The commitment of the government is necessary to continuously and effectively improve vocational education.

9.1 Policy theme 2: Encouraging collaboration between vocational colleges and industries

Based on data analysis, there has been an ongoing mismatch between Thailand's vocational education policy and the requirements of the country's labour market. As a result, some businesses such as 7-Eleven established their own training colleges; this exposes the failure of vocational educators to provide the workplace skills required by the labour market. As the role of government is essential in making sure industry needs match the capacity of vocational education to ensure its country's economic development (Cameron & O'Hanlon-Rose, 2011; Ho & Ge, 2011), we argue that the Thai government should collaborate more with industry. Research tools such as surveys and interviews with industries should be conducted in order to find the right vocational education curricula and courses that match industry needs in order to produce a vocationally skilled workforce suited to workplace requirements.

9.2 Policy theme 3: Fostering a greater role for private vocational providers

Figure 5 above clearly demonstrates the reluctance of the Thai government and society regarding this policy discourse. Private vocational education can be a significant element in helping the government develop a vocationally skilled workforce; however, private institutions have not been operating at full capacity. Due to the limited places available in public vocational institutions, the private sector should be given greater encouragement and support to attract more students and operate at a more optimal level.

Based on the research findings, we argue that the Thai government should provide greater support to the private vocational education sector. As many of the students enrolled in the private vocational education sector are from lower socioeconomic backgrounds, policies such as adequate financial support could be an advantage for students and their families. This would enable more students to complete their courses and be ready for employment in the labour market. Furthermore, the private vocational education sector can help enhance

the production of a vocationally skilled workforce by improving its own capabilities, such as providing courses that meet the current needs of the labour market. Being in the private sector can actually give such institutions an advantage in that it is much easier for them to be flexible with the changing needs of the labour market. The government would only need to provide resources to support these changes.

9.3 Policy theme 4: Promoting a positive image for vocational education

The general attitude of Thai society has played a key part in discouraging the enrolment of students in vocational education. It is widely known that vocational education is perceived as a second-rate choice. Most students and parents prefer university courses as they confer a sense of honour and prestige to the family if a child graduates from university. Even when Prime Minister Thaksin Shinawatra established the ICL program to provide funding to students in vocational and higher education programs, there were a large numbers of students who applied for this loan to access higher rather than vocational education. This misperception and stigma attached to vocational education is even more severe for private vocational students than it is for public vocational students.

The negative image of vocational education can be overcome by a process of ‘rebranding’—improving its quality via significant industry involvement. As in the aforementioned case of Singapore, teaching staff should be sent to factories and businesses regularly to update their knowledge and skills as required by industry, and subsequently pass on what they have learned to their students (Khaopa, 2012). The Thai government should not only implement a policy modelled on the experience of Singapore, but also encourage advertisements on television that promote the rebranding of vocational education. It is argued that when the quality of vocational students is improved, the image of vocational education will improve as well. When the negative perception of Thai society towards vocational education is changed, this may attract high-achievers, which would then further raise the quality and image of vocational education. This policy discourse on encouraging a positive attitude of Thai society towards vocational education is a necessary challenge for the Thai government in response to its skilled labour shortages.

9.4 Policy theme 5: Maintaining the continuity of policy implementation

The results have shown that during the period from 1992 to 2014, successive Thai governments were inconsistent in the implementation of vocational education policy. There were many political interruptions such as Cabinet reshuffles, which was the main obstacle to effective policy implementation. A foreign journalist defined the Thai education policy as a ‘stop-go’ policy (Coben, 1997). In line with this, Sippanondha Ketudat, Thailand’s former Na-

tional Education Council Director, also pointed out that the changing of education ministers interrupted education reform and its policies (Bai-Ngern, 2000). These 'too many' Cabinet reshuffles have resulted in the discontinuity of many education policies.

Education policies cannot be effectively implemented if policies are changed frequently and the ministers are only in the position for a short period of time. These political interruptions demonstrate a lack of dedication by the Thai government and its politicians in committing to build the country's skilled foreign workforce through vocational education. These policy interruptions might be interpreted as being part and parcel of decision-making within a democratic society. In other words, policies can be changed frequently depending upon the political parties that have been elected. However, there are some areas that require a more solid and consistent level of policy implementation such as improving vocational education for the purpose of improving national economic development. Hence, it is argued that bipartisan agreement on policies relating to a country's economic development is essential to ensuring the full implementation of such policies.

10 Conclusion

Vocational education is necessary for the development of a country's skilled workforce (Akojee, 2016; Cournoyer et al., 2017). Exemplar evidence in Asia can be witnessed during the rapid growth and structural transformation stage of development in Singapore (Ho & Ge, 2011). The Singaporean government focused on developing its manufacturing industry and worked to develop targeted vocational education (Ho & Ge, 2011). Undoubtedly, quality vocational education has been one of the reasons for Singapore's economic success as a high-income country.

This example supports the important role of vocational education in helping a country improve its competitive advantage by providing a labour workforce with the vocational skills that matches the requirements of industry. This can lead to increased productivity and economic growth. Based on the data analysis, it is clear that the Thai government should be more dedicated to increasing the country's vocationally skilled workforce. The government should also engage in greater collaboration with industry. In addition, Thai society can contribute to the expansion of the vocational sector by adopting a more positive attitude towards vocational education. Moreover, all stakeholders within society should offer support for building a vocationally skilled workforce in order to contribute to Thailand's economic development.

A documentation analysis was chosen as the key research method for this paper, which has resulted in the limiting of other empirical evidences. Further possible research could be an in-depth study of vocational education in Thailand using a more holistic approach for gathering data by interviewing all stakeholders such as industry leaders, vocational education providers, policy makers, students and their families.

References

- Abelman, C., Johanson, R., Kohtbantau, A., Moock, P., Poshyananda, T., & Trivisvavet, S. (2001). *Thailand: Secondary Education for Employment Volume I: A Policy Note, East Asia and Pacific Region*. The World Bank.
- Agrawal, T. (2013). Vocational education and training programs (VET): An Asian perspective. *Asia-Pacific Journal of Cooperative Education*, 14(1), 15–26.
- Akoojee, S. (2016). Developmental TVET Rhetoric In-Action: The White Paper for Posy-School Education and Training in South Africa. *International Journal for Research in Vocational Education and Training*, 3(1), 1–15.
- Allais, S. (2012). Will skills save us? Rethinking the relationships between vocational education, skills development policies, and social policy in South Africa. *International Journal of Educational Development*, 32, 632–642.
- Amornvivat, S. (2012, August 15). The worrisome state of the Thai workforce. *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Anand Panyarachun's Policy Statement (1991). *Policy Statement of Prime Minister Anand Panyarachun*. Government of Thailand.
- Auto industry needs skilled labour (2012, December 27). Matichon (in Thai). *Matichon*. www.matichon.co.th
- Bai-Ngern, K. (2000, October 13). Tailor education to ability, says expert. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Baldi, G., Brueggemann-Borck, I., & Schlaak, T. (2014). The Effect of the Business Cycle on Apprenticeship Training: Evidence from Germany. *Journal of Labor Research*, 35, 412–422
- Bennell, P., & Segerstrom, J. (1998). Vocational education and training in developing countries: Has the World Bank got it right? *International Journal of Educational Development*, 18(4), 271–287.
- Better graduates needed (2007, August 22). *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Billett, S. (2014). The standing of vocational education: Sources of its societal esteem and implications for its enactment. *Journal of Vocational Education and Training*, 66(1), 1–21.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Bunharn Silpa-archa's Policy Statement (1995). *Policy Statement of Prime Minister Bunharn Silpa-archa*. Government of Thailand.
- Bureau of International Cooperation (2008). *Towards a Learning Society in Thailand: An introduction to education in Thailand*. Ministry of Education (Bangkok).
- Cabinet Resolution (1996, November 26). *The Removal of Gender Disparity in Education*. The Secretariat of the Cabinet. http://www.cabinet.soc.go.th/soc/Program2-3.jsp?top_serl=122603&key_word=%CD%D2%AA%D5%C7%C8%D6%A1%C9%D2&owner_dep=&meet_date_dd=01&meet_date_mm=10&meet_date_yyyy=2539&doc_id1=&doc_id2=&meet_date_dd2=30&meet_date_mm2=09&meet_date_yyyy2=2544
- Cabinet Resolution (2004a, October 26). *National Education Standard*. The Secretariat of the Cabinet. http://www.cabinet.soc.go.th/soc/Program2-3.jsp?top_serl=99200653&key_word=%CD%D2%AA%D5%C7%C8%D6%A1%C9%D2&owner_dep=&meet_date_dd=01&meet_date_

- mm=10&meet_date_yyyy=2544&doc_id1=&doc_id2=&meet_date_dd2=30&meet_date_mm2=09&meet_date_yyyy2=2549
- Cabinet Resolution (2004b, October 26). *The Professional Qualification Institute*. The Secretariat of the Cabinet. http://www.cabinet.soc.go.th/soc/Program2-3.jsp?top_serl=200686&key_word=%CD%D2%AA%D5%C7%C8%D6%A1%C9%D2&owner_dep=&meet_date_dd=01&meet_date_mm=10&meet_date_yyyy=2544&doc_id1=&doc_id2=&meet_date_dd2=30&meet_date_mm2=09&meet_date_yyyy2=2549
- Cabinet Resolution (2000, March 28). *The Loan Fund from Asian Development Bank*. The Secretariat of the Cabinet. http://www.cabinet.soc.go.th/soc/Program2-3.jsp?top_serl=136464&key_word=%CD%D2%AA%D5%C7%C8%D6%A1%C9%D2&owner_dep=&meet_date_dd=01&meet_date_mm=10&meet_date_yyyy=2539&doc_id1=&doc_id2=&meet_date_dd2=30&meet_date_mm2=09&meet_date_yyyy2=2544
- Cabus, S. J. (2015). Does Enhanced Student Commitment Reduce School Dropout? Evidence from Two Major Dropout Regions in the Netherlands. *Regional Studies*, 49(4), 599–614.
- Cameron, R., & O'Hanlon-Rose, T. (2011). Global skills and mobility challenges and possibilities for VET: A crossborder cross-sectoral case study. *International Journal of Training Research*, 9, 134–151.
- Chalamwong, Y., & Suebnusorn, W. (2012, November 12). Learning that creates value for work. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Changdacha, C., & Larpkesorn, P. (2017). Kingdom of Thailand. In *Guidebook to Education Systems and Reforms in Southeast Asia and China* (pp. 238–270). Southeast Asian Ministers of Education Organization.
- Chavalit Yongchaiyudh's Policy Statement (1996). *Policy Statement of prime Minister Chavalit Yongchaiyudh*. Government of Thailand.
- Chong, T. (2014). Vocational Education in Singapore: meritocracy and hidden narratives. *Discourse: Studies in the Cultural Politics of Education*. 35(5), 637–648.
- Chuan Leekpai's Policy Statement (1992). *Policy Statement of Prime Minister Chuan Leekpai*. Government of Thailand.
- Chuan Leekpai's Policy Statement (1997). *Policy Statement of Prime Minister Chuan Leekpai*. Government of Thailand.
- Coben, R. (1997, August 20). Thai ministry shaken and stirred. *The Australian*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Cournoyer, L., Fournier, G., & Masdonati, J. (2017). Going Back-to-School in Vocational Education and Training: Introduction. *International Journal for Research in Vocational Education and Training*, 4(3), 196–205.
- Education reform to improve Thailand's education standards (2013, October 1). *Thai News Service*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Educators comment on policies proposed by various political parties (2011, June 14). *Thai News Service*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Egawa, A. (2013). Will Income Inequality Cause a Middle-Income Trap in Asia? *Bruegel Working Paper*, Vol. 797.
- Ekachai, S. (2011, September 22). Time-bomb of youth violence. *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>

- Eichhorst, W., Rodriguez-Planas, N., Schmidl, R., & Zimmermann, K. F. (2015). A road map to vocational education and training in industrialized countries. *Industrial and Labor Relations Review*, 68(2), 314–337.
- Hawley, J. D., & Paek, J. (2005). Developing human resources for the technical workforce: a comparative study of Korea and Thailand. *International Journal of Training and Development*, 9(1), 79–94.
- Ho, K., & Ge, Y. (2011). Education and human capital management in a world city: the case of Singapore. *Asia Pacific Journal of Education*, 31(3), 263–276.
- International Labour Organization (2008). *Labour and Social Trends in ASEAN 2008: Driving Competitiveness and Prosperity with Decent Work*. International Labour Organization.
- International Labour Organization. (2013). *Thailand: A labour market profile*. International Labour Organization.
- Japan External Trade Organization (2006). *Comparative Survey of the Labor Environment in ASEAN, China, India*. Japan External Trade Organization.
- Jitsuchon, S. (2012). Thailand: Achieving Social-Economic Development Balance. In Y. Zhang, F. Kimura & S. Oum (Eds.), *Moving Toward a New Development Model for East Asia - The Role of Domestic Policy and Regional Cooperation* (pp. 255–278). ERIA.
- Johanson, R., & Wanasiri, W. (2001). Private vocational education in Thailand. In *Secondary education for employment Volume II: Background Papers*. World Bank.
- Khaopa, W. (2012, November 19). Vocational Education. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Kim, K. S. (2012). Developmental state policy, educational development, and economic development: Policy process in South Korea (1961–1979). *Education Policy Analysis Archives*, 20(40), 1–18.
- Lashley, C. (2009). The right answers to the wrong questions? Observations on skill development and training in the United Kingdom's hospitality sector. *Tourism and Hospitality Research*, 9(4), 340–352.
- Ling, M. (2015). 'Bad Students Go to Vocational Schools!': Education, Social Reproduction and Migrant Youth in Urban China. *The China Journal*, 73, 108–131.
- Marshall, C., & Rossman, G. (1999). *Designing Qualitative Research* (3rd ed.). SAGE Publications.
- Marukatat, S. (2008, August 14). More graduates needed in vocational subjects. *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Montague, A. (2013). Vocational and skill shortages in Vietnamese manufacturing and service sectors, and some plausible solutions. *Asia Pacific Journal of Human Resources*, 51, 208–227. <https://doi.org/10.1111/j.1744-7941.2012.00060.x>
- Na Mahachai, S. (2007, August 18). Education fund misallocation. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Nottingham, D. (2008, December 4). Pampering people. *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Office of the Education Council (2011). *Strategy of Producing and Developing Human Workforce: The Second Decade of Education Reform B.E. 2552–2561*, Ministry of Education (Bangkok).
- Ongdee, S. (2007, December 14). Strong Baht continues to be industry bugbear. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Ongphet, B. (2011, June 23). TOA splashes the cash to cover national painting skills shortage. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>

- Organisation for Economic Co-operation and Development (2013). *Economic Outlook for Southeast Asia, China and India 2014: Beyond the Middle-Income Trap*. Organisation for Economic Co-operation and Development.
- Phongpaichit, P., & Benyaapikul, P. (2013). *Political economy dimension of a middle income trap: challenges and opportunities for policy reform: Thailand*. Chulalongkorn University.
- Pongvutitham, A. (1998, September 7). CTE plea on vocational education. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Pongvutitham, A. (1999, December 23). 7-Eleven focus on staff training for expansion. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Prachyakorn, P. (2009, June 3). CSR watch – picking potential model employees in petrochemicals. *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Private colleges told to compete on quality (2002, May 16). *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Robson, C. (2011). *Real World Research* (3rd ed.). Wiley.
- Saengpassa, C. (2012, October 1). Educators and corporates must join hands to design courses. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research Methods for Business Students* (4th ed.). Pearson Education.
- Scheme adds to techs' skills (2008, June 14). *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Schwandt, T. A. (2007). *The SAGE Dictionary of Qualitative Inquiry* (3rd ed.). SAGE Publication.
- Shortage of engineers stifling industrial growth (1989, July 5). *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Siam Cement Group hires vocational college graduates (2009, February 12). *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Sornnil, B., Boonyasopon, T., Utakris, S., & Chokepipat, P. (2005). *Research on Direction of Vocational and Technology Education* (in Thai). Ministry of Education (Bangkok).
- Stone, K. B., Kaminski, K., & Gloeckner, G. (2009). Closing the Gap: Education Requirements of the 21st Century Production Workforce. *Journal of Industrial Teacher Education*, 45(3), 5–33.
- Suchinda Kraprayoon's Policy Statement (1992). *Policy Statement of Prime Minister Suchinda Kraprayoon*. Government of Thailand.
- Szirmai, A. (2012). Industrialisation as an engine growth in developing countries, 1950–2005. *Structural Change and Economic Dynamics*, 23, 406–420.
- Thai government provides income contingency loan for greater educational opportunities (2005, April 11). *Thai News Service*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Thailand must put more emphasis on technical studies (2011, February 5). *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Thailand's private schools feel the pinch (1997, November 8). *The Straits Times*. Factiva database. <https://www.dowjones.com/products/factiva/>
- The Human Capital Report (2015). *Employment, Skills and Human Capital Global Challenge Insight Report*. World Economic Forum.
- The need of skilled labour (2012, August 29). Krungtheptharakij (in Thai). *Bangkokbiznews*. www.bangkokbiznews.com

- The NESD Plan 7 (1992–1996). *The National Economic and Social Development Plan 7 (1992–1996)*. The National Economic and Social Development Board.
- The NESD Plan 8 (1997–2001). *The National Economic and Social Development Plan 8 (1997–2001)*. The National Economic and Social Development Board.
- The NESD Plan 9 (2002–2006). *The National Economic and Social Development Plan 9 (2002–2006)*. The National Economic and Social Development Board.
- The NESD Plan 10 (2007–2011). *The National Economic and Social Development Plan 10 (2007–2011)*. The National Economic and Social Development Board.
- The NESD Plan 11 (2012–2016). *The National Economic and Social Development Plan 11 (2012–2016)*. The National Economic and Social Development Board.
- Vocational Education Commission (2012). *Policy, Aims, and Internationalisation of Vocational Workforce Development Plan B.E. 2555–2569*. Ministry of Education (Bangkok).
- Vocational school enrolment falls sharply (2006, August 8). *Thai News Service*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Wage moves spark fears of big jump in jobless (2011, September 5). *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Wiriyaong, N. (2001, June 16). Vocational – Training Flagship – The Mechanics of Learning. *The Nation*. Factiva database. <https://www.dowjones.com/products/factiva/>
- Wongsamuth, N. (2012, June 28). Vocational education needs more government support. *Bangkok Post*. Factiva database. <https://www.dowjones.com/products/factiva/>
- World Bank (2012). *Leading with ideas: Skills for growth and equity in Thailand*. World Bank.

Biographical Notes

Dr Nakarin Chalapati is currently teaching Commerce and Hospitality Management degrees at Box Hill Institute, Melbourne, Australia. His research interests are building a skilled workforce, skilled labour shortages, students' learning experiences, and hospitality education.

Dr Supaporn Chalapati has extensive experience teaching in both Higher Education and VET sectors in the Asia-Pacific region, namely Australia, Taiwan, China, Vietnam, and Thailand. Her research interests focus on the internationalisation of higher education, English-medium business education, cross-cultural teaching and learning and students' learning experiences.